

Obituaries

Wilfred G Bigelow

A pioneer of open heart surgery, who co-developed the first electronic pacemaker

Wilfred G Bigelow, known as "Bill," introduced the concept and technique of hypothermia that first made open heart surgery possible. He also co-developed the first electronic pacemaker in 1950. In 1956 he was influential in developing the first formal cardiac surgery training programme in Canada.

Dr Bigelow began researching hypothermia in a storage room in the basement of the Banting Institute in Toronto, Canada, shortly after the second world war. He theorised that cooling patients before an operation would reduce the amount of oxygen the body required and slow the circulation, allowing for longer and safer access to the heart.

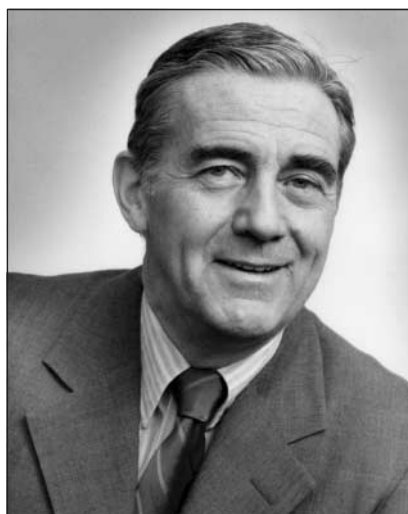
His peers were sceptical, and his studies investigating how groundhogs hibernated in winter proved disappointing. However, after testing the cooling theory successfully on a dog in 1949, in 1950 Dr Bigelow and his colleague, Dr John Callaghan, presented their results at an American Surgical Association meeting. Three years later, the cooling technique was successfully used during surgery on a human patient.

In 1949, during experimental surgery, he found he was able to restart a dog's heart by stimulating it at regular intervals with a probe. The following year he co-developed the first electronic heart pacemaker with Dr Callaghan and electrical engineer John Hopps.

"Dr Bigelow was a highly skilful surgeon, an imaginative scientist, an inspiring teacher, and a wise administrator," said long-time friend Dr Robert Salter, emeritus professor of orthopaedic surgery at the University of Toronto. "He has been without question the most outstanding academic surgeon in Canada in his time. His innovative contributions to cardiac surgery have been of enormous significance."

Wilfred Gordon Bigelow was born in Brandon, Manitoba, Canada, in 1913. His father, also Dr Wilfred Bigelow, founded the first medical clinic in Canada. After qualifying in 1938 at the University of Toronto, Bill Bigelow did surgical residencies at the Toronto General Hospital.

In 1941 he treated a young Canadian for frostbite, and had to amputate the man's



gangrenous fingers. Shocked how little was known about frostbite, and encouraged by a professor, he started to research frostbite. It was a pivotal moment in his career and life.

Shortly afterwards, Dr Bigelow began military service as a captain in the Royal Canadian Army Medical Corps. He first served with the field transfusion unit and then worked as a battle surgeon with the 6th Canadian Casualty Clearing Station. In England and northwest Europe, while treating many soldiers with frostbitten limbs, his interest in hypothermia grew stronger.

After the second world war he returned to a surgical residency in Toronto, and then completed graduate training as a research fellow at Johns Hopkins Hospital in Baltimore, Maryland, United States. In 1947 he moved back to Canada and became a staff general surgeon at the Toronto General Hospital. He was appointed a research fellow in the University of Toronto's department of surgery in 1950. Dr Bigelow became an assistant professor in 1953, and a full professor in 1970.

In 1984 he published a book about his research, *Cold Hearts: The Story of Hypothermia and the Pacemaker in Heart Surgery*. In 1990 he published *Mysterious Heparin: The Key to Open Heart Surgery*.

Bill Bigelow received the Gairdner Foundation International Award for achievement in biomedical research in 1959 and in 1981 he was inducted into the Order of Canada. In 1992 he received the Canadian Medical Association's Frederic Newton Gisborne Starr Award, the highest award the association can bestow on a member. Five years later he was admitted to the Canadian Medical Hall of Fame.

Dr Bigelow was also a former president of the American Association for Thoracic Surgery and the Society for Vascular Surgery. He was president of the Canadian Cardiovascular Society from 1970 to 1972, and he headed the division of cardiac surgery at Toronto General Hospital for more than 20 years.

"Dr Bigelow had a genuine curiosity for learning," said Edmonton paediatric cardiologist Dr Ruth Collins Nakai, president-elect of the Canadian Medical Association. "He was so enthusiastic about it, he was infective . . . He would always think outside the box but because he was such a humane and human person he was able to attract young people to want to study with him and to be just as curious . . . I was always astonished because once he met me, he never forgot me. He would come and say hello and ask how I was doing . . . I was a lowly resident but he had a memory for people and made them all feel special."

In 2001 the International Academy of Cardiovascular Sciences named Dr Bigelow a "living legend."

Predeceased by his wife, Margaret Ruth Jennings, he leaves a daughter, three sons, and three grandchildren. [BARBARA KERMODE-SCOTT]

Wilfred Gordon ("Bill") Bigelow, emeritus professor of cardiac surgery University of Toronto, Ontario, Canada (b Brandon, Manitoba, Canada, 1913; q Toronto 1938; BA, MD), died from congestive heart failure on 27 March 2005.

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Wilhelmina Mary Harcourt Behan (née Hughes)



Professor of muscle pathology Glasgow (b 1939; q Bristol 1962; MD, FRCP, FRCPath), died from primary peritoneal adenocarcinoma on 19 March 2005.

After house jobs in Bristol Wilhelmina trained in pathology in Cambridge. She then spent the next seven years working in Boston, Massachusetts. She was appointed senior lecturer in pathology at Glasgow University in 1979. Here she pursued her interest in neuromuscular diseases, particularly polymyositis and chronic fatigue syndrome, for which she was internationally renowned. She also diagnosed the first post mortem case of AIDS in Scotland. She leaves a husband, three children, and two grandchildren. [MILES BEHAN]

Wa'el Seifeddin Boustany

Former consultant orthopaedic surgeon Damascus, Syria (b Damascus 1931; q Damascus University 1956; LAH, FRCS, FRCSI), died from prostate cancer on 16 December 2004.

Wa'el came to England in the 1960s for postgraduate training and held various house posts. In 1966 he went to the Adelaide Hospital, Dublin, as orthopaedic registrar. He then moved to the South Infirmary in Cork. In 1978 he went home to Damascus, where he worked in private practice. In 1989 he went to work in Al-Noor Hospital, Abu Dhabi, staying until retirement in 1998. He leaves a wife, Catherine, and four sons. [CATHERINE BOUSTANY]

Barry Winston Lewis



Consultant paediatrician London (b 1941; q University College Hospital, London, 1965; FRCP, FRCPC), d 2 June 2004. Barry became a consultant paediatrician at Whipps Cross Hospital in 1973. He started the neonatal unit and set up a popular

MRCP course. Meanwhile, his Wimpole Street practice expanded and he left the NHS in 1984. He was instrumental in bringing together obstetricians and paediatricians practising privately to set up the Portland Hospital for mothers and children. Barry's portrait is engraved on a plaque in the hospital's foyer. His last decade was dogged by ill health, but this did not stop his ebullience and enthusiasm. He leaves a wife, Jo; three children; and four grandchildren. [HARVEY MARCOVITCH, JAKE MCKINNON, GERALD MCENERY]

Saraswathi Mahalingam

Former clinical medical officer in child health Lanarkshire NHS Trust, Scotland (b Salem, Tamilnadu, south India, 1937; q Stanley Medical College, Chennai, Tamilnadu, south India, 1962), died from cardiac failure on 22 July 2004. Saraswathi Mahalingam and her husband, Palanisamy Mahalingam, were the first members of the Jangam community to travel to and work in the United Kingdom. She was continuously employed in the NHS from 1969 until she retired in 2003. From 1993 she worked as a clinical medical officer in community child health at Lanarkshire NHS Trust (Airdrie and Coatbridge). The last 18 months of her life were plagued with ill health. Predeceased by her husband, she leaves two daughters. [MEKALA MAHALINGAM]

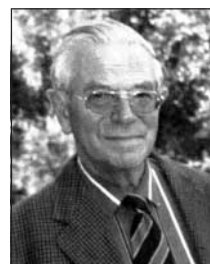
Archibald John Ogg



Former consultant ophthalmic surgeon Salisbury Infirmary and Odstock Hospital, Wiltshire (b 1921; q Oxford/The London Hospital 1946; DO, FRCS), d 19 February 2005.

After house jobs and service in the Royal Navy John held ophthalmic posts in Oxford and at Moorfields Hospital, where he became senior registrar. He was appointed to Salisbury in 1955, where he remained for the rest of his career. John was a member of the Magic Circle, and a skilled carpenter and joiner, who designed and made miniature dolls houses and automata (the picture shows him with a medieval cathedral builder, part of an enormous model that he made of Salisbury Cathedral). His great love was the restoration of a near derelictcroft on the Hebridean island of Coll. John published *House in the Hebrides* in 2004 about thecroft's restoration and associated adventures. He leaves Doreen, four children, and six grandchildren. [A J DINN, J K DATES]

James Douglas Sleight



Former professor and head of department of bacteriology Glasgow Royal Infirmary (b Glasgow 1930; q Glasgow 1953; FRCPath, FRCP Glas), d 10 February 2005.

Appointed consultant in Dunbartonshire in 1965, Douglas Sleight moved to the university department of bacteriology and immunology at the Western Infirmary in 1969, later transferring to the Royal Infirmary. He was appointed reader and in 1989 became professor and head of department. His main research interests were urinary tract infections, the use of antibiotics, and healthcare associated infections. He investigated an outbreak of *Klebsiella* meningitis at Killearn Hospital, which was controlled by withdrawing all antibiotics. Later at Glasgow Royal Infirmary he curtailed an outbreak of Legionnaires' disease by ordering that the air conditioning be switched off. He leaves a wife, Rosemary; two sons; and four grandchildren. [MORAG C TIMBURY, A CHRISTINE MCCARTNEY]

John Kenneth Walker



Former consultant radiologist Groby Road Hospital, Leicester (b Heckmondwike 1923; q Leeds 1947; DMRD, FFR, MD), died from a heart attack on 19 October 2004.

John was appointed consultant in Newcastle and Hexham in 1958. Eight years later he moved to Leicester as one of four consultants appointed to start a new cardiac unit at Groby Road Hospital and to pursue his interest in cardiac radiology. John helped set up the new catheter laboratory and he continued to carry out invasive investigations in close conjunction with cardiological colleagues. The Groby Road unit was for many years the only centre carrying out interventional cardiology and cardiac surgery in southern Trent. He leaves a wife, Magda, and four children. [PHILIPPA FELDMAN, MARK FELDMAN, ANNE TATTERSFIELD]